


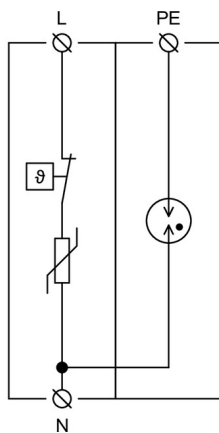
## HSA-275/1+1

- Surge arresters type T2+T3 ensure the equipotential bonding and reduce switching, induced and residual overvoltage in LV power supply systems.
- The products consist of varistors with big discharge ability.
- In 1+1 and 3+1 configurations they are additionally combined with a gas discharge tube, which ensures zero leakage current through the PE conductor.
- Installed at the boundaries of LPZ 1 – LPZ 3 into subsidiary switchboards and control panels.
- If the product contains two PE (or PEN) terminals, it must not be used as a PE (PEN) bridge.
- **M** indication specifies a type of construction with removable module.
- **S** indication specifies a version with remote monitoring.

Type		HSA-275/1+1
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T2, T3
System		TN-S, TT
Number of poles		2
Rated operating AC voltage	$U_N$	230 V
Maximum continuous operating voltage AC	$U_C$	275 V
Maximum discharge current (8/20)	$I_{max}$	50 kA
Nominal discharge current for class II test (8/20)	$I_n$	20 kA
Open circuit voltage of the combination wave generator	$U_{OC}$	6 kV
Total discharge current (8/20) L+N->PE	$I_{Total}$	50 kA
Voltage protection level at $I_n$ (L/N)	$U_p$	< 1.2 kV
Voltage protection level at $I_n$ (N/PE)	$U_p$	< 1.3 kV
Voltage protection level at $U_{OC}$ (L/N)	$U_p$	< 0.8 kV
Impulse discharge current for class I test (10/350) N/PE	$I_{imp}$	20 kA
Temporary overvoltage test value (TOV) for $t_T = 5$ s (L/N)	$U_T$	337 V
Temporary overvoltage test value (TOV) for $t_T = 0,2$ s (N/PE)	$U_T$	1 200 V
Response time (L/N)	$t_A$	< 25 ns
Response time (N/PE)	$t_A$	< 100 ns
Maximal back-up fuse		160 A gL/gG
Short-circuit current rating at maximum back-up fuse	$I_{SCCR}$	60 kA <sub>rms</sub>
Lightning protection zone		LPZ1, LPZ2, LPZ3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	$\theta$	-40 ÷ 70 °C
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-534:2016 (doesn't apply to „V“ connection) for T2	S	2,5 mm <sup>2</sup> (L, N) 6 mm <sup>2</sup> (PE, PEN)
Clamp fastening range (solid conductor)		1.5 ÷ 25 mm <sup>2</sup>
Clamp fastening range (stranded conductor)		1.5 ÷ 16 mm <sup>2</sup>
Tightening moment		3 Nm
Installation		On DIN rail 35 mm

Type		HSA-275/1+1
Modular width		2 TE
Operating position		Any
Signalling at the device		Optic
Importance of local signaling		OK – clear target FAULT – red target
Remote signalling		No
Modular design		No
Lifetime		> 100 000 h
<b>Designed according to standards</b>		
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94
<b>Application standards</b>		
Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Devices for protection against transient overvoltages		HD 60364-5-534:2016
Selection and application principles for SPDs connected to low-voltage power systems		IEC 61643-12:2008
<b>Ordering, packaging and additional data</b>		
Mass	m	190 g
Mass (including the packaging)	m	204 g
Packaging dimensions (H x W x D)		102 x 45 x 74 mm
Packaging value	V	0.34 dm <sup>3</sup>
ETIM group		EG000021
ETIM class		EC000941
Customs tariff no.		85363010
EAN code		 8590681115077
<b>Art. number</b>		<b>24 528</b>

**Internal diagram**



**Application wiring diagram (installation)**

